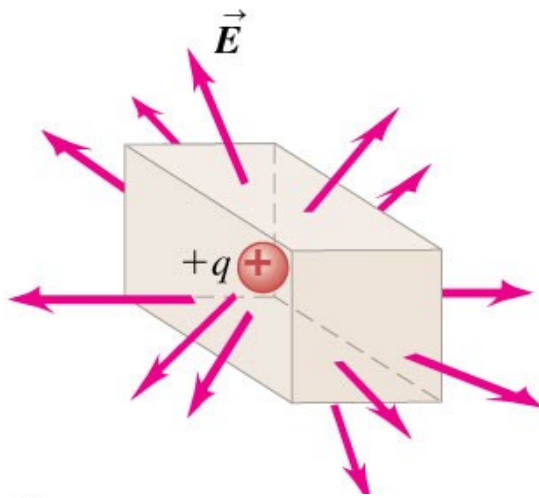
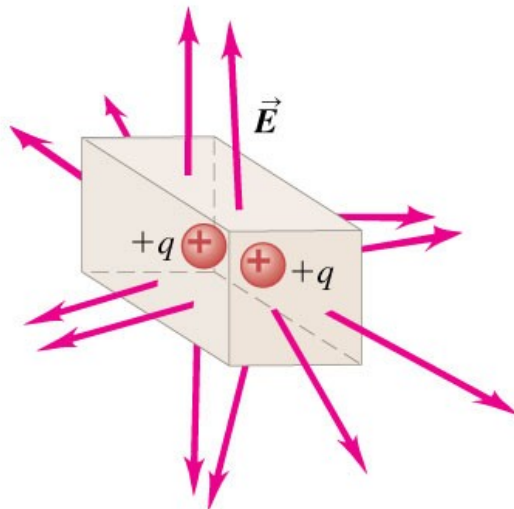


# Electric Flux

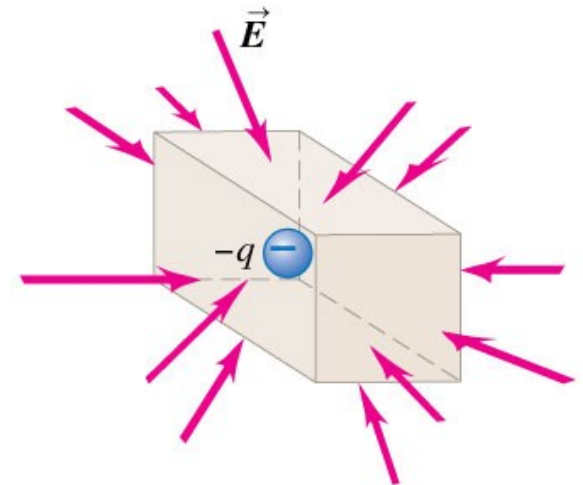
(a) Positive charge inside box, outward flux



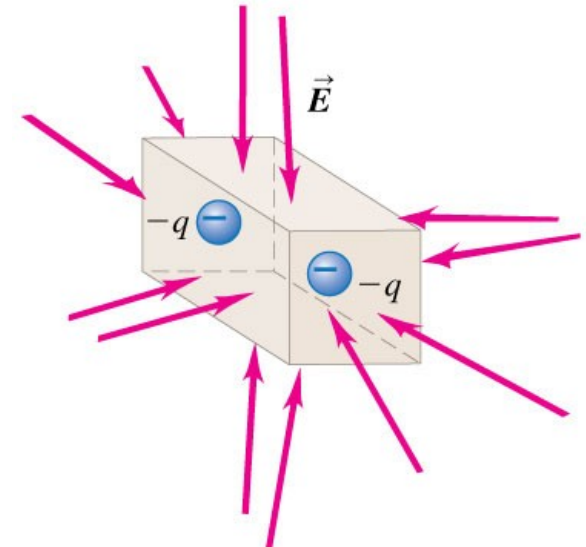
(b) Positive charges inside box, outward flux



(c) Negative charge inside box, inward flux

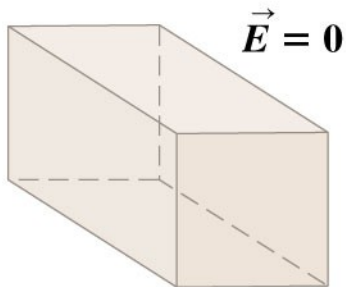


(d) Negative charges inside box, inward flux

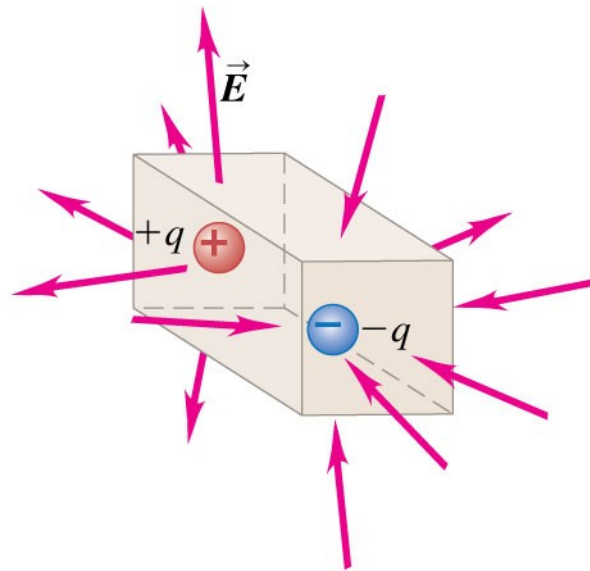


# Zero Electric Flux

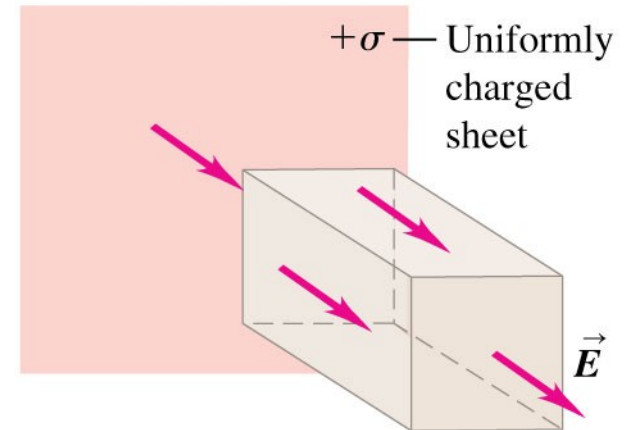
(a) No charge inside box,  
zero flux



(b) Zero *net* charge inside box,  
inward flux cancels outward flux.

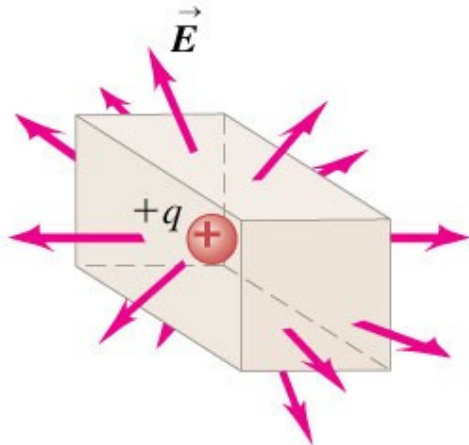


(c) No charge inside box,  
inward flux cancels outward flux.



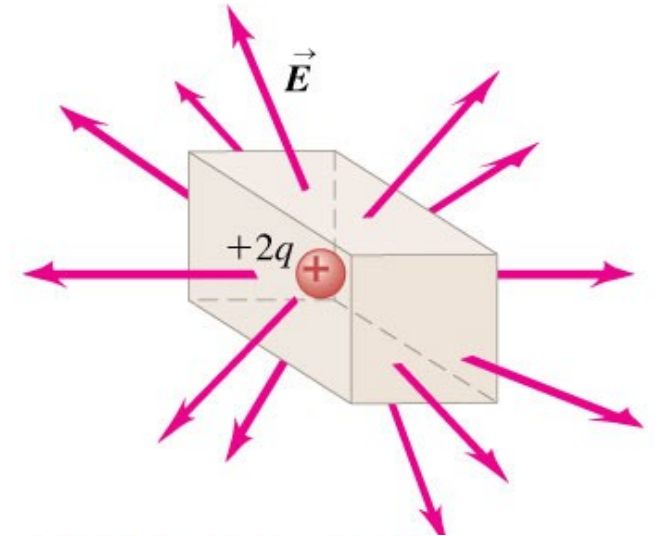
# Electric Flux: Scaling Properties

(a) A box containing a charge

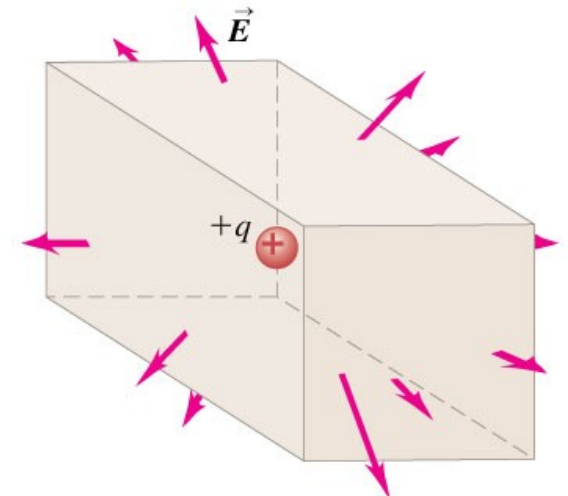


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(b) Doubling the enclosed charge doubles the flux.



(c) Doubling the box dimensions does not change the flux.



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# Faraday's Icepail Experiment

